

### **REMARKS**

In response to the Office Action mailed February 1, 2007, Applicants respectfully request reconsideration. Claims 1-5 were previously pending in this application. Claims 1-5 have been amended herein. As a result, claims 1-5 are pending for examination with claim 1 being the sole independent claim. No new matter has been added by the amendments presented herein.

#### **Rejections Under 35 U.S.C. §112**

The Office Action rejected claims 1 and 2 under 35 U.S.C. §112, second paragraph, because various limitations in claims 1 and 2 lacked antecedent basis. In response, Applicants have amended claims 1 and 2 to overcome these rejections. Accordingly, Applicants respectfully request that these rejections be withdrawn.

#### **Rejections Under 35 U.S.C. §101**

The Office Action rejected claim 1 under 35 U.S.C. §101, stating that: “the end result of IP multicasting does not provide and include the intended 802.1X protocol-based multicast control.” Applicants respectfully request reconsideration. As amended, claim 1 includes recitations of 802.1X authentication and the searching of corresponding subscriber account information in the 802.1X authenticated subscriber information. Therefore, this rejection is believed to have been overcome. Accordingly, Applicants respectfully request that this rejection be withdrawn.

#### **Rejections Under 35 U.S.C. §103**

The Office Action rejected claims 1-5 under 35 U.S.C. §103(a) as being purportedly unpatentable over *IEEE Standard 802.1X-2001 Port-Based Network Access Control* (hereinafter referred to as IEEE) in view of Norihiro et al, *An Architecture for User Authentication of IP Multicast and Its Implementation* (hereinafter referred to as Norihiro). Applicants respectfully request reconsideration.

1. Discussion of References Relied Upon in the Office Action

A. IEEE is a standards document describing the use of port-based network access control to provide authentication of devices connected to a local area network (LAN) port in an IEEE 802 LAN infrastructure (Abstract). FIG. 6-5 of IEEE illustrates a network that includes a supplicant system, an authenticator system, and an authentication server. As shown in FIGS. 6-5 and 8-3 of IEEE, the supplicant system is authenticated for IEEE communication by exchanging extensible authentication protocol (EAP) messages with the authentication server via the authenticator system. FIG. 8-3 of IEEE illustrates the sequence of EAP messages that are exchanged for authorizing communications via a particular port. FIG. 8-14 shows a state machine for a supplicant, including various states of authenticating, authenticated, connecting, etc.

Annex C to IEEE includes a section J “Multicast Propagation” that briefly describes considerations for the forwarding of multicast packets by a bridge (page 119). However, IEEE does not appear to discuss multicasting techniques in detail.

B. Norihiro describes an architecture for a user authentication of IP multicasting, and states that security issues for IP multicasting should be resolved (Title, Abstract). Section 2 of Norihiro, “Requirements,” discusses the authentication of IP multicast receivers and states that it is desirable to send multicast packets only to authorized recipients. Section 5-2 of Norihiro, “Authentication of IP Multicast Receivers,” discusses a challenge and response authentication technique used for authenticating an IP multicast receiver.

2. The Claims Distinguish over the Combination of IEEE and Norihiro.

As discussed above, IEEE describes a type of IEEE 802 authentication. Norihiro describes a type of authentication for joining a multicast group.

By contrast, claim 1 as amended recites, *inter alia*, intercepting a request message for joining in a multicasting group . . . searching corresponding subscriber account information in the 802.1X authenticated subscriber information . . . and then adding the subscriber to the multicasting group if the authentication is passed successfully; otherwise rejecting the subscriber's request.

Neither IEEE or Norihiro teaches or suggests searching corresponding subscriber account information in the 802.1X authenticated subscriber information . . . and then adding the subscriber to the multicasting group if the authentication is passed successfully. Therefore, claim 1 patentably distinguishes over IEEE and Norihiro, either alone or in combination. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claims 2 to 5 depend from claim 1 and are therefore patentable for at least the same reasons.

**CONCLUSION**

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

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